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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i)) for all designations
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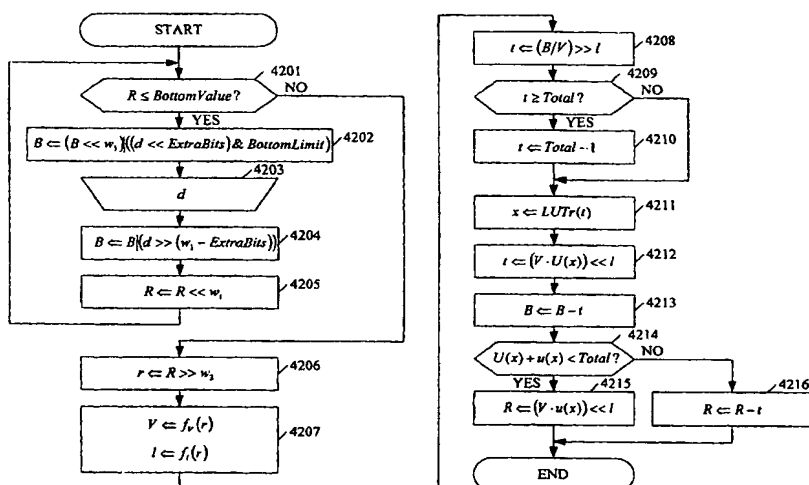
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(54) Title: FAST CODEC WITH HIGH COMPRESSION RATIO AND MINIMUM REQUIRED RESOURCES



(57) Abstract: This invention provides a novel single-pass and multi-pass synchronized encoder and decoder, performing order(s) of magnitude faster data compression and decompression, at any compression ratio with the higher or the same perceived and measured decompressed image quality in comparison with the best state-of-the-art compression methods, using order(s) of magnitude less system resources (processor complexity, memory size, consumed power, bus bandwidth, data latency). These features are achieved using novel direct and inverse non-stationary filters for the recursive octave direct and inverse subband transformation, novel simple context modeling and symbol probability estimation using a minimum number of histograms with the fast adaptation for the sign and the magnitude of the transformation coefficients, a novel accelerated range coder without division operations, and a novel synchronisation of the compressed data.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/YU 03/00027

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N7/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 6 442 298 B1 (NIXON STUART WILLIAM) 27 August 2002 (2002-08-27)</p> <p>column 7, line 38 -column 9, line 67; figure 3 column 15, line 38-67</p> <p>-/--</p>	<p>1-9, 11, 56-64, 66, 113-121, 123, 168-176, 178, 225-233, 235, 280-288, 290, 337-345, 347, 392-400, 402, 449-452</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

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O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

8 document member of the same patent family

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International Application No.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>-----</p> <p>CHRYSAFIS C ET AL: "An algorithm for low memory wavelet image compression" IMAGE PROCESSING, 1999. ICIP 99. PROCEEDINGS. 1999 INTERNATIONAL CONFERENCE ON KOBE, JAPAN 24-28 OCT. 1999, PISCATAWAY, NJ, USA, IEEE, US, 24 October 1999 (1999-10-24), pages 354-358, XP010368832 ISBN: 0-7803-5467-2 cited in the application page 355, right-hand column, line 7-15</p> <p>-----</p>	1,56, 113,168, 225,280, 337,392, 449-452
A	<p>COSMAN P ET AL: "MEMORY CONSTRAINED WAVELET BASED IMAGE CODING" IEEE SIGNAL PROCESSING LETTERS, IEEE SIGNAL PROCESSING SOCIETY, US, vol. 5, no. 9, 1 September 1998 (1998-09-01), pages 221-223, XP000782042 ISSN: 1070-9908 abstract</p> <p>-----</p>	9,64, 121,176, 233,288, 345,400
A	<p>US 5 926 791 A (OGATA MASAMI ET AL) 20 July 1999 (1999-07-20)</p> <p>figures 2-5</p> <p>-----</p>	1,56, 113,168, 225,280, 337,392, 449-452

INTERNATIONAL SEARCH REPORT

Information on patent family members

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			AU	3980799 A	29-05-2000
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US 5926791	A	20-07-1999	JP	9181612 A	11-07-1997